

FLORENCE-Z90

~90° wide beam. Ideal for retail and industrial lighting. Can be used for general office lighting with shade.

SPECIFICATION:

Dimensions	61.0 x 286.0 mm
Height	8.5 mm
Fastening	screw
ROHS compliant	yes ⓘ

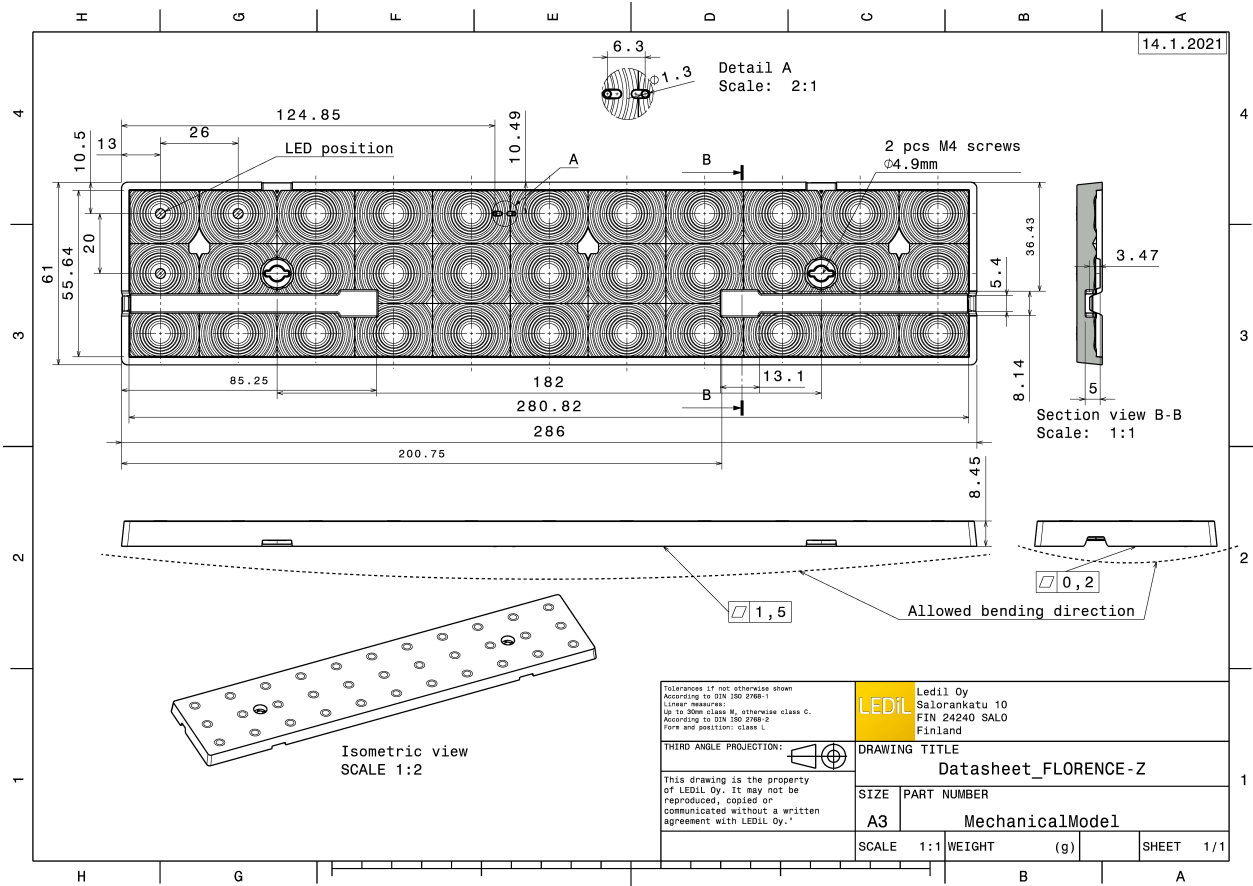
MATERIALS:

Component	Type	Material	Colour	Finish
FLORENCE-Z90	Linear lens	PMMA	clear	



ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13853_FLORENCE-Z90 » Box size: 398 x 298 x 140 mm	72	18	6	7.8

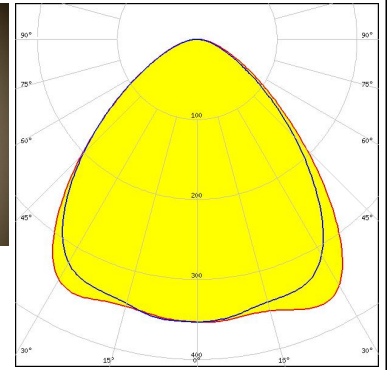
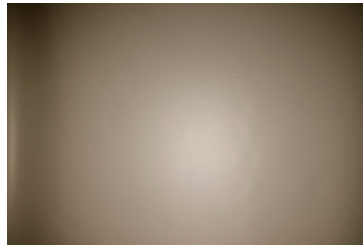


See also our general installation guide: www.ledil.com/installation_guide

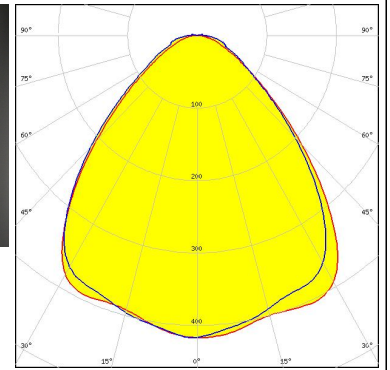
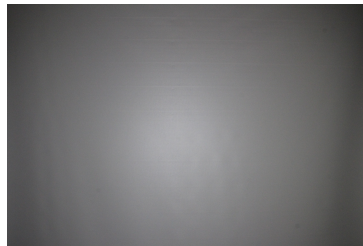
OPTICAL RESULTS (MEASURED):



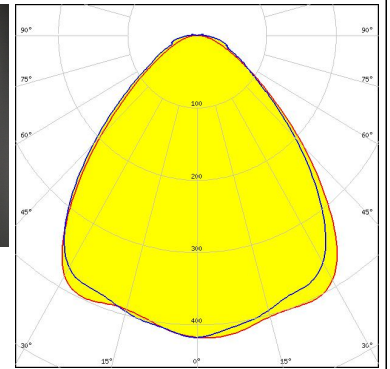
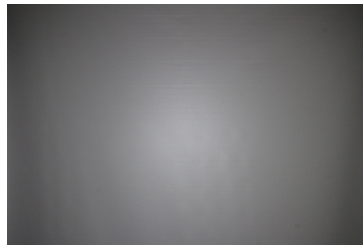
LED XH-B/G
 FWHM / FWTM 95.0° / 140.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



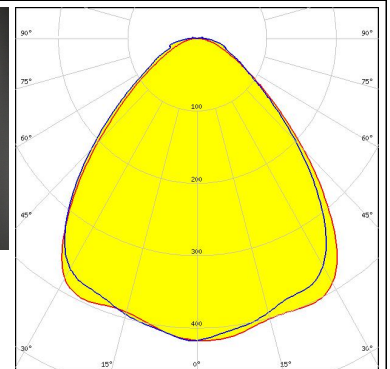
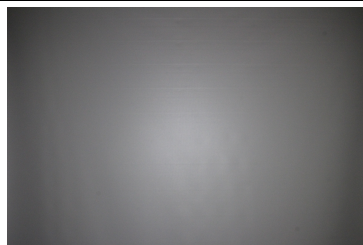
LED LED-Modul 280 x 55 mm 1B
 FWHM / FWTM 90.0° / 134.0 + 144.0°
 Efficiency 92 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:




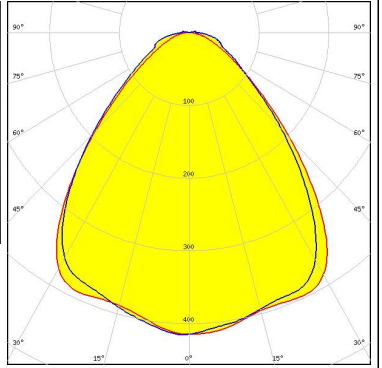
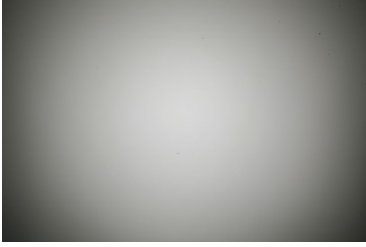
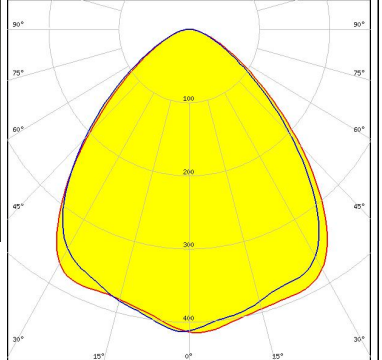

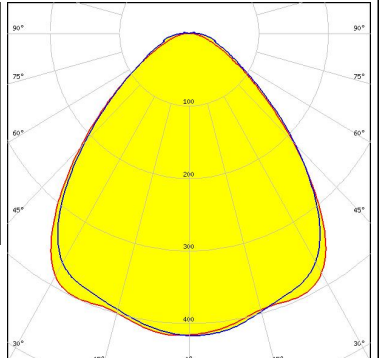
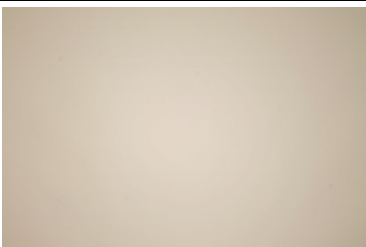
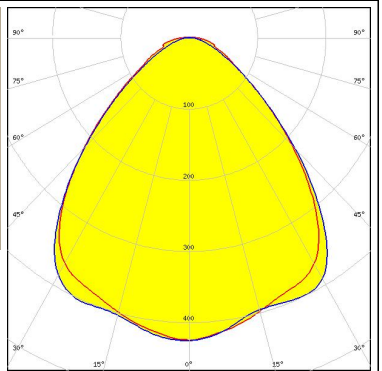
LED LED-Modul 280 x 55 mm 1F
 FWHM / FWTM 90.0° / 133.0 + 144.0°
 Efficiency 92 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



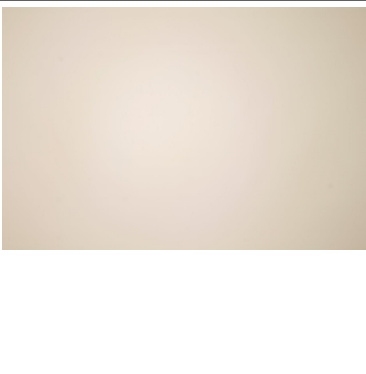
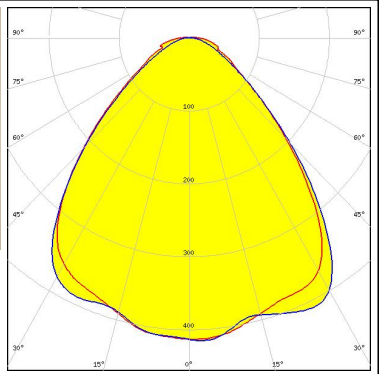

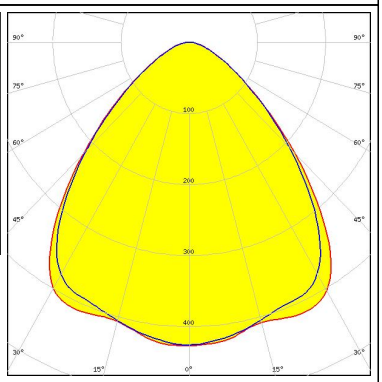

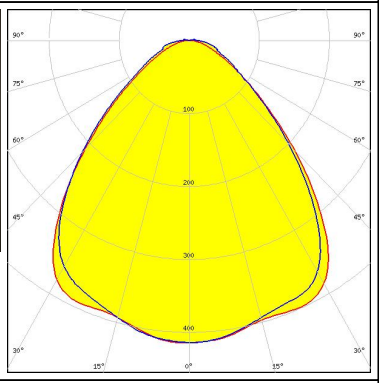

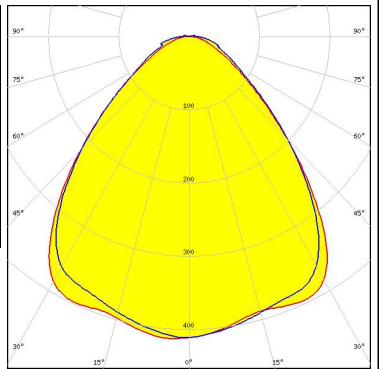
LED LED-Modul 280 x 55 mm 2F
 FWHM / FWTM 90.0° / 133.0 + 144.0°
 Efficiency 92 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

<p>LUMILEDS</p> <p>LED LUXEON 3030 2D (Square LES)</p> <p>FWHM / FWTM 88.0 + 87.0° / 133.0 + 153.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>LUMILEDS</p> <p>LED LUXEON 3535 2D</p> <p>FWHM / FWTM 92.0° / 135.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>LUMILEDS</p> <p>LED LUXEON 3535L HE</p> <p>FWHM / FWTM 92.0° / 139.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>LUMILEDS</p> <p>LED LUXEON XR-3535L (L202 - xxxx033C30001)</p> <p>FWHM / FWTM 91.0° / 134.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

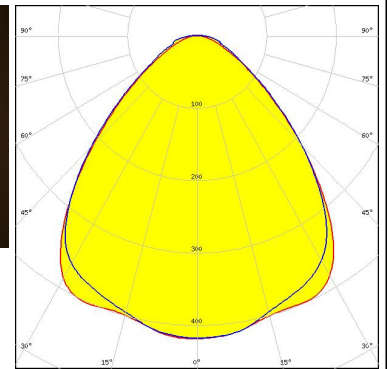
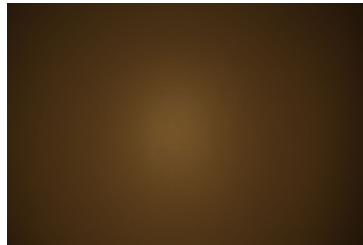
OPTICAL RESULTS (MEASURED):

<p>LUMINUS</p> <p>LED MP-2016 FWHM / FWTM 90.0° / 140.0° Efficiency 91 % Peak intensity 0.4 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>NICHIA</p> <p>LED NF2x757D FWHM / FWTM 92.0° / 134.0° Efficiency 90 % Peak intensity 0.4 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>NICHIA</p> <p>LED NFSW757H FWHM / FWTM 91.0 + 90.0° / 134.0 + 145.0° Efficiency 92 % Peak intensity 0.4 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>OSRAM</p> <p>LED PL-BAR-G3 1100 280x55 FWHM / FWTM 90.0° / 140.0° Efficiency 92 % Peak intensity 0.4 cd/m LEDs/each optic 1 Light colour White Required components:</p>		

OPTICAL RESULTS (MEASURED):

OSRAM

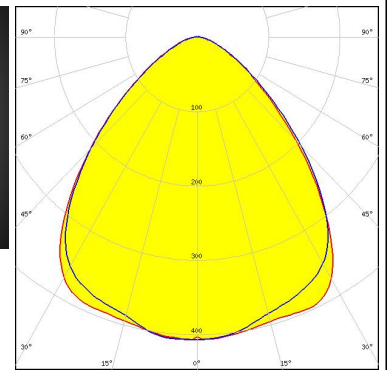
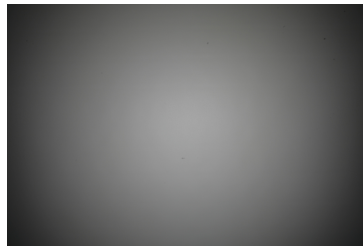
LED PLG2-BAR-1100-xxx-280x55-DC
 FWHM / FWTM 92.0° / 138.0°
 Efficiency 92 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

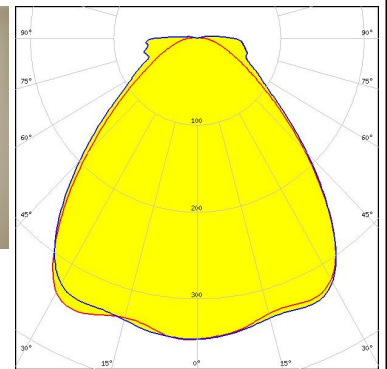
LED Duris E5
 FWHM / FWTM 92.0° / 135.0°
 Efficiency 88 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

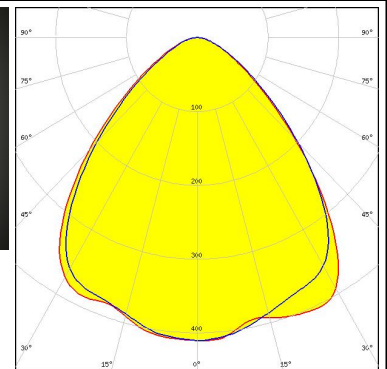
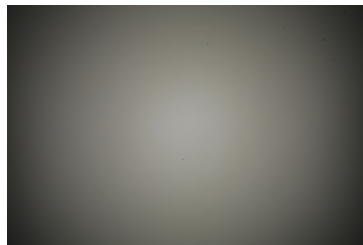
LED Duris S2
 FWHM / FWTM 95.0° / 165.0°
 Efficiency 90 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

LED Duris S5 (Single chip)
 FWHM / FWTM 91.0° / 133.0°
 Efficiency 88 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

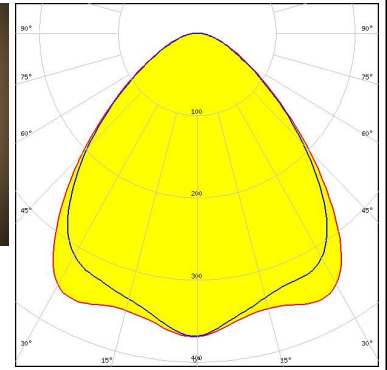
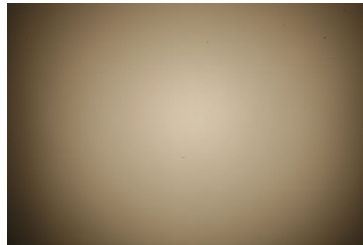


OPTICAL RESULTS (MEASURED):

OSRAM

Opto Semiconductors

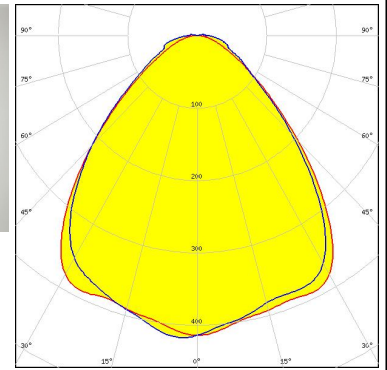
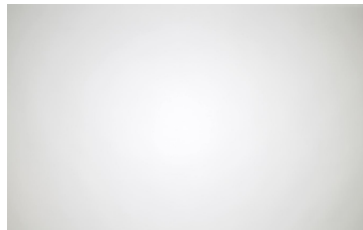
LED OSCONIQ P 2226
 FWHM / FWTM 94.0° / 140.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

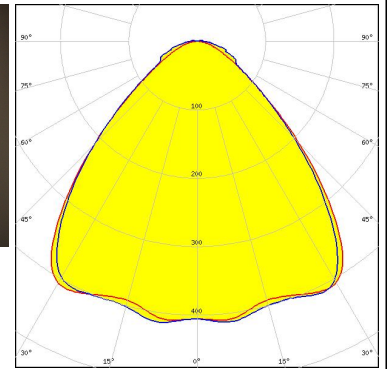
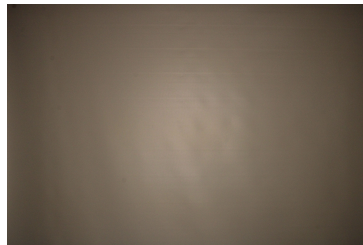
Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3
 FWHM / FWTM 91.0° / 145.0°
 Efficiency 93 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



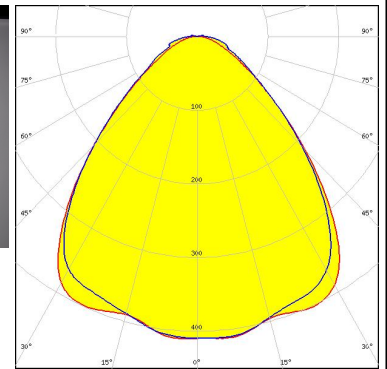
PHILIPS

LED Fortimo LED Line VO 1ft MF 3R HV5
 FWHM / FWTM 90.0° / 130.0 + 146.0°
 Efficiency 94 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



PHILIPS

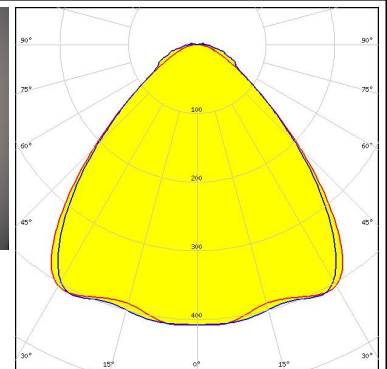
LED Fortimo LED Line 1ft 650lm 3R HV4 & LV4
 FWHM / FWTM 90.0° / 142.0°
 Efficiency 93 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

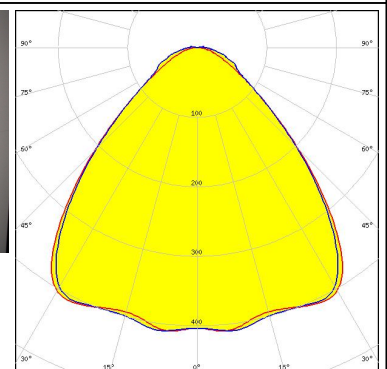
PHILIPS

LED Fortimo LED Line 1ft HF 3R HV5
 FWHM / FWTM 90.0° / 139.0°
 Efficiency 94 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



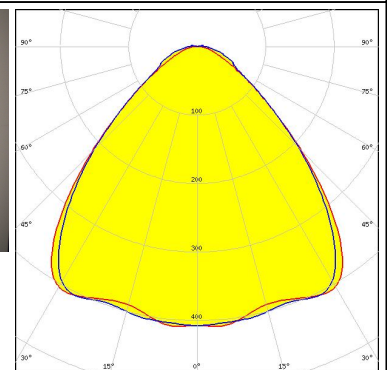
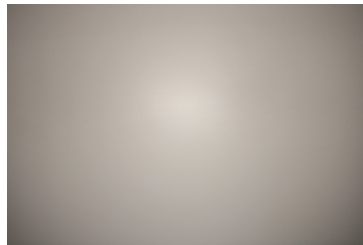
PHILIPS

LED Fortimo LED Line 1ft LF 3R HV5 & LV5
 FWHM / FWTM 90.0° / 140.0°
 Efficiency 94 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



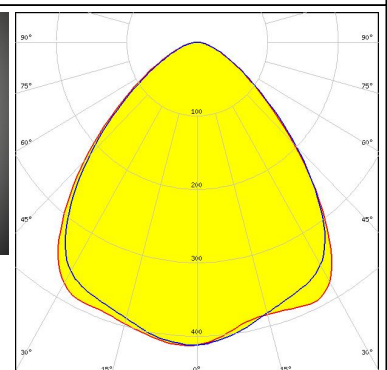
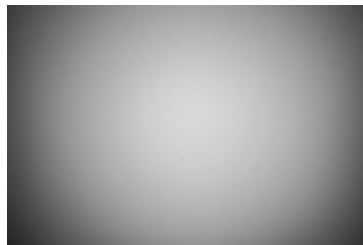
PHILIPS

LED Fortimo LED Line 1ft MF 3R HV5 & LV5
 FWHM / FWTM 91.0° / 138.0°
 Efficiency 94 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

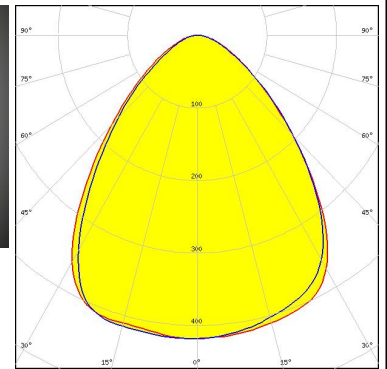
LED LM231 A/B
 FWHM / FWTM 91.0° / 134.0°
 Efficiency 88 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

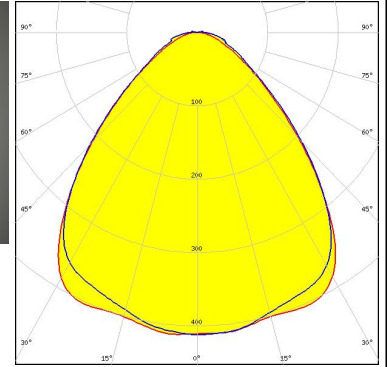
SAMSUNG

LED LM561B
 FWHM / FWTM 86.0° / 133.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



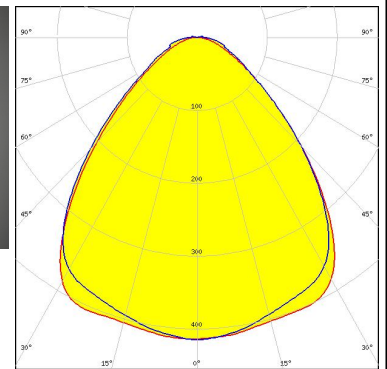
SAMSUNG

LED LM561B Plus
 FWHM / FWTM 92.0° / 141.0°
 Efficiency 93 %
 Peak intensity 0.4 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



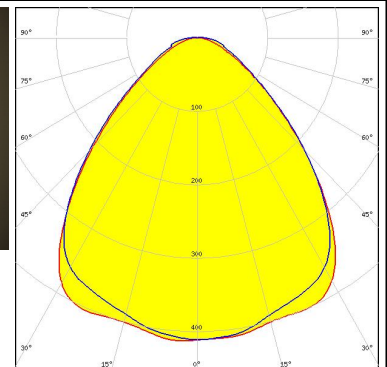
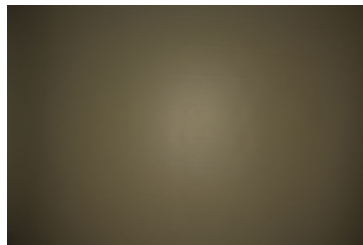
SAMSUNG

LED LM561C
 FWHM / FWTM 92.0° / 140.0°
 Efficiency 93 %
 Peak intensity 0.4 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:

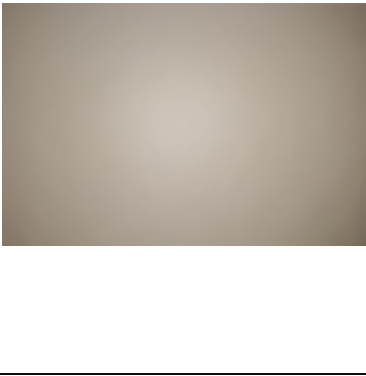
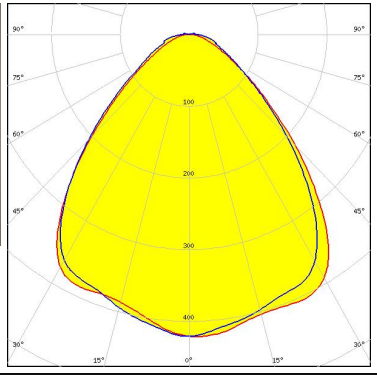
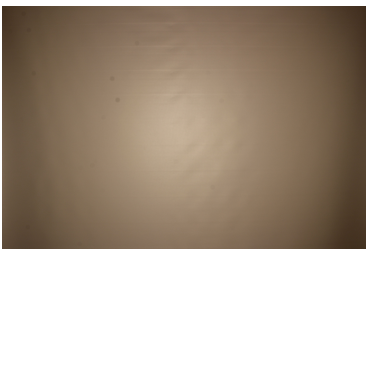
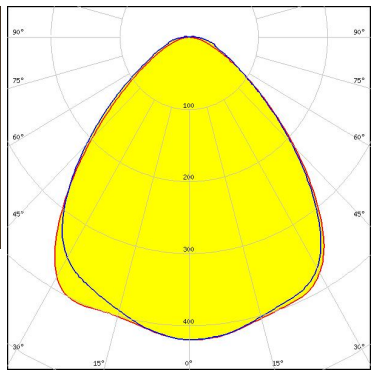

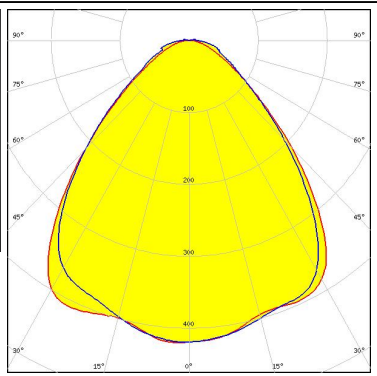
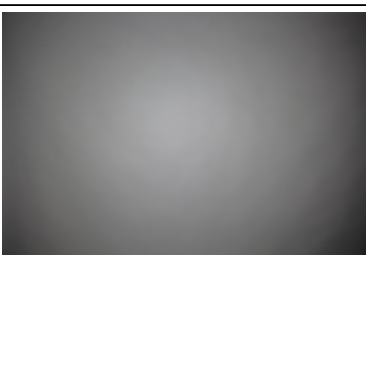
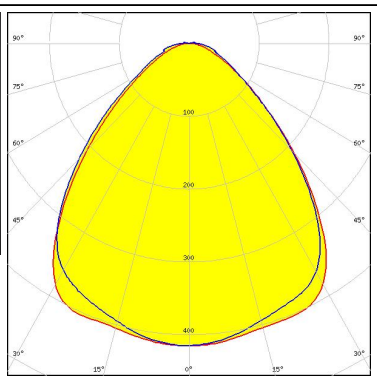


SAMSUNG

LED LT-R286A
 FWHM / FWTM 93.0° / 140.0°
 Efficiency 93 %
 Peak intensity 0.4 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



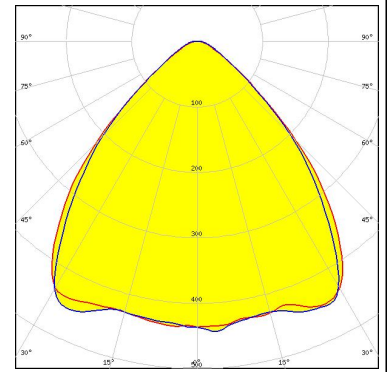
OPTICAL RESULTS (MEASURED):

<p>SEOUL SEMICONDUCTOR</p> <p>LED SEOUL 3030</p> <p>FWHM / FWTM 91.0° / 138.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED SEOUL 5630C</p> <p>FWHM / FWTM 90.0° / 136.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED SEOUL DC 3030</p> <p>FWHM / FWTM 90.0° / 140.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>TRIDONIC</p> <p>LED LLE G2 55x280mm 2000lm</p> <p>FWHM / FWTM 91.0° / 135.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

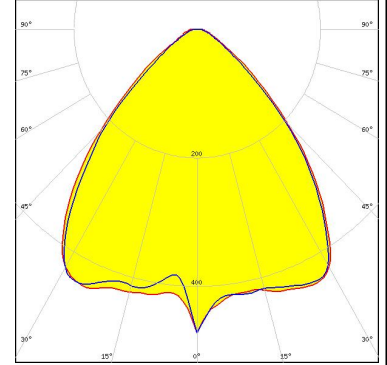
OPTICAL RESULTS (SIMULATED):



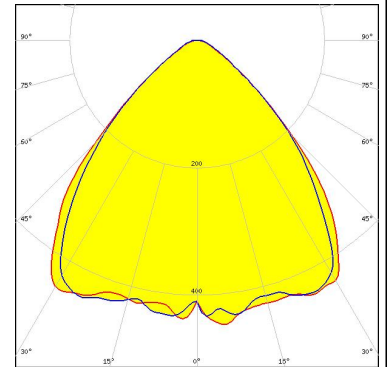
LED J Series 5050 Round LES
 FWHM / FWTM 88.0° / 120.0°
 Efficiency 91 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



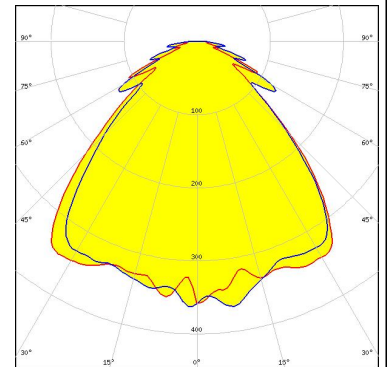
LED J Series 5050C 6V E Class
 FWHM / FWTM 87.0° / 122.0°
 Efficiency 91 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



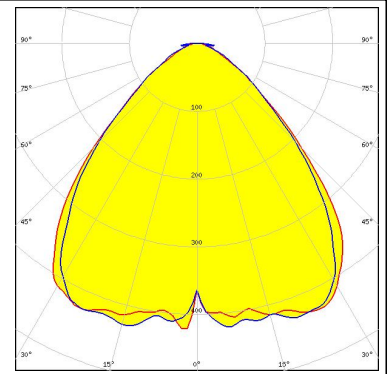
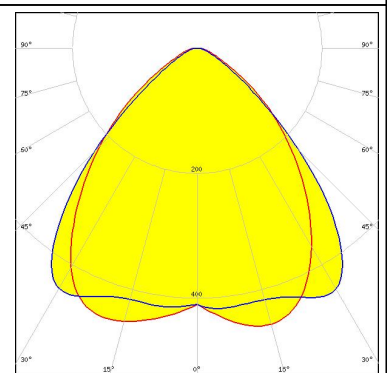
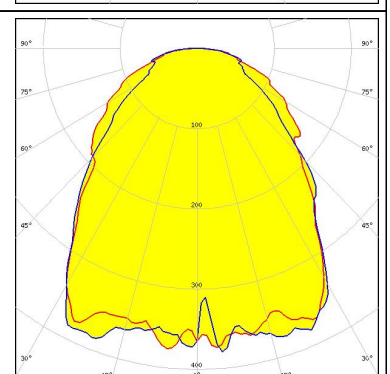
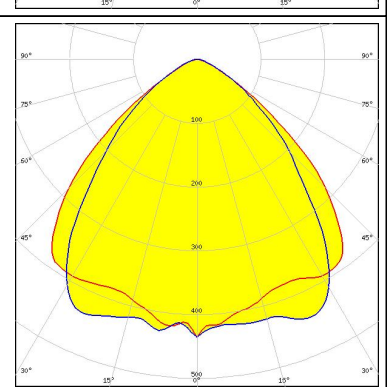
LED LUXEON 5050 Round LES
 FWHM / FWTM 90.0° / 120.0°
 Efficiency 91 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED NF2x757G
 FWHM / FWTM 90.0° / 146.0°
 Efficiency 80 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (SIMULATED):

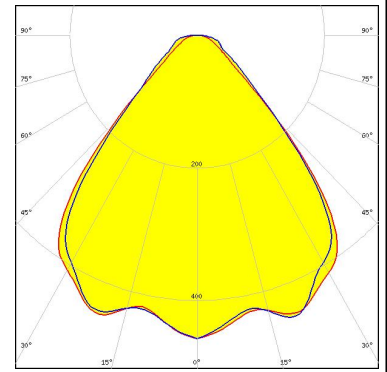
<p>NICHIA</p> <p>LED: NFMW48xA FWHM / FWTM: 89.0° / 130.0° Efficiency: 92 % Peak intensity: 0.4 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>NICHIA</p> <p>LED: NFSx757G FWHM / FWTM: 86.0 + 90.0° / 128.0 + 122.0° Efficiency: 92 % Peak intensity: 0.5 cd/lm LEDs/each optic: 2 Light colour: White Required components:</p>	
<p>NICHIA</p> <p>LED: NVSxE21A FWHM / FWTM: 90.0° / 163.0° Efficiency: 94 % Peak intensity: 0.4 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED: Duris E 2835 FWHM / FWTM: 86.0 + 87.0° / 120.0 + 126.0° Efficiency: 92 % Peak intensity: 0.4 cd/lm LEDs/each optic: 2 Light colour: White Required components:</p>	

OPTICAL RESULTS (SIMULATED):

OSRAM

Opto Semiconductors

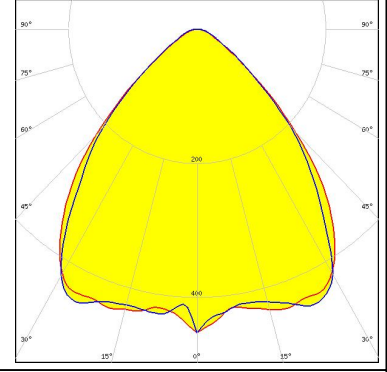
LED Duris E 2835
FWHM / FWTM 85.0° / 122.0°
Efficiency 87 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

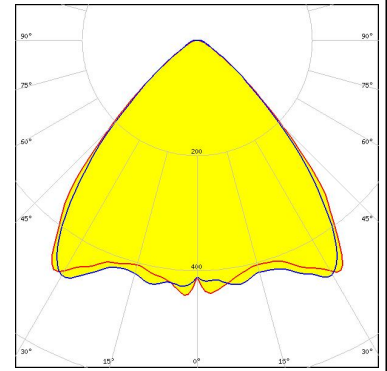
LED Duris S8
FWHM / FWTM 89.0° / 121.0°
Efficiency 91 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

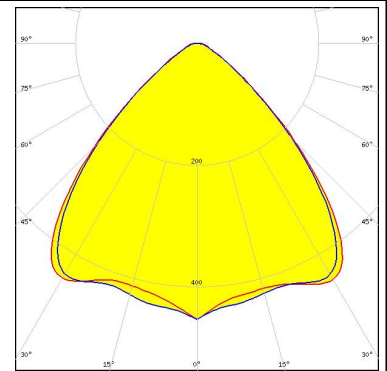
Opto Semiconductors

LED OSCONIQ C 2424
FWHM / FWTM 88.0° / 114.0°
Efficiency 92 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:



SAMSUNG

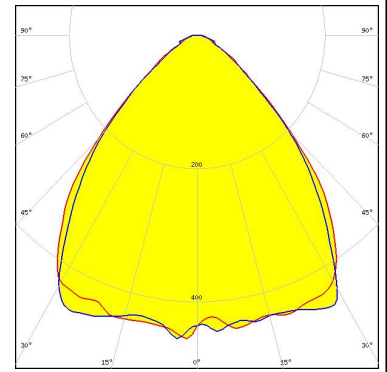
LED LM28xB Series
FWHM / FWTM 90.0° / 120.0°
Efficiency 93 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OPTICAL RESULTS (SIMULATED):

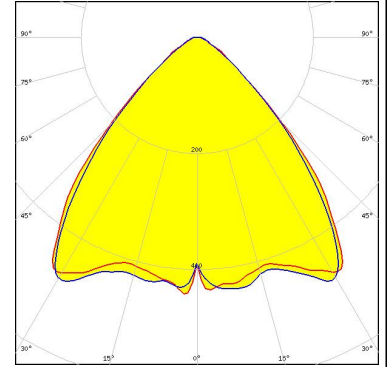
SAMSUNG

LED LM301B
 FWHM / FWTM 88.0° / 122.0°
 Efficiency 91 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 2
 Light colour White
 Required components:



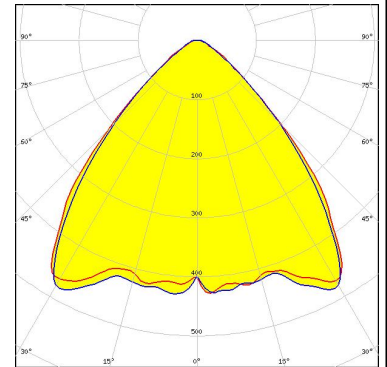
SAMSUNG

LED LM301B
 FWHM / FWTM 88.0° / 119.0°
 Efficiency 92 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



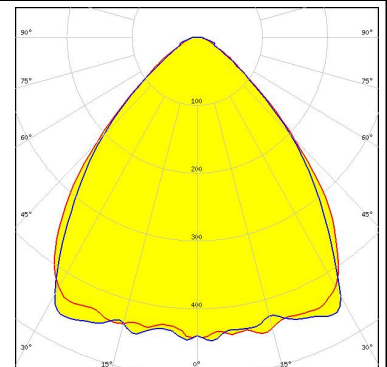
SAMSUNG

LED LM302Z plus
 FWHM / FWTM 87.0° / 118.0°
 Efficiency 92 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:


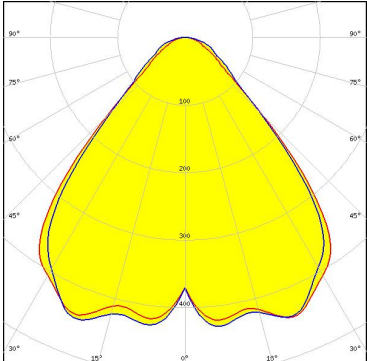

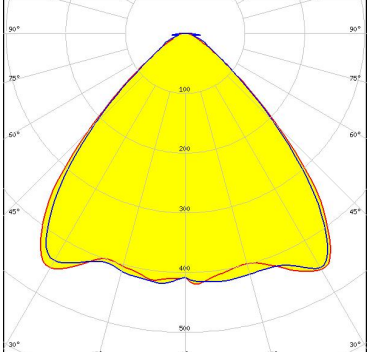


SAMSUNG

LED LM302Z plus
 FWHM / FWTM 87.0° / 122.0°
 Efficiency 91 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 2
 Light colour White
 Required components:



OPTICAL RESULTS (SIMULATED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL 5630D</p> <p>FWHM / FWTM: 83.0° / 127.0°</p> <p>Efficiency: 84 %</p> <p>Peak intensity: 0.5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3030C</p> <p>FWHM / FWTM: 89.0° / 120.0°</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 0.5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

GENERAL INFORMATION:

NOTE: The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

MATERIALS:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

LEDiL Oy

Joensuunkatu 13
FI-24240 SALO
Finland

LEDiL Inc.

228 West Page Street
Suite D
Sycamore IL 60178
USA

Ledil Optics Technology (Shenzhen) Co., Ltd.

405 , Block B
Casic Motor Building
Shenzhen 518057
P.R.CHINA

Local sales and technical support

[www.ledil.com/
where_to_buy](http://www.ledil.com/where_to_buy)

Shipping locations

Salo, Finland
Hong Kong, China

Distribution Partners

[www.ledil.com/
where_to_buy](http://www.ledil.com/where_to_buy)